REMARKS

Claims 1-29 remain in this application. Claim 2 has been amended. Applicant respectfully requests that the above-identified application be reconsidered in view of the following remarks.

Title

The current Office Action objects to the title of the invention as not being descriptive. Applicants respectfully disagree, the title is quite detailed and resembles the language of the preamble of claim 1, for example. In accordance with MPEP, and because of the detail already provided in the title, Applicants respectfully request a suggestion of a new title for the present application.

The 35 U.S.C. § 103(a) Rejection

Claims 1-6, 12-13, 15-17, 19-25, 31-32, 34, 36, 47-51 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,275,907 to Baumgartner et al. ("Baumgartner") in view of U.S Patent No. 5,895,484 to Arimilli. At the outset, there are 29 claims pending in the present case. Furthermore, the Office Action discusses claims 7-11, 14, 18, and 26-29 in the text of the rejection. Accordingly, it is assumed that the Examiner intended to reject claims 1-29 under 35 U.S.C. § 103(a) in view of these two references.

It is noted that the Examiner states that Applicants' Amendment of April 6, 2004 has been carefully considered, but there is absolutely no discussion in the current Office Action as to the arguments made therein.

According to an embodiment of the present invention, before the coherence

protocol results are determined or completed, a requesting node or a coherence agent on

behalf of the requesting node may issue a speculative memory read request to a home

node of the requested memory location. The home node having the requested location

may be defined as the node whose main memory stores the data for memory location

(address) to be read. The home node that receives the speculative read request may

access a memory address space to retrieve data specified by the speculative read request.

While the home node of the memory location processes the speculative read request, the

coherence agent determines the results of a cache coherence protocol. Based on these

results, the coherence agent may send a cancel or confirm command to the home node.

The cancel command causes the home node to drop the retrieved data, while the confirm

command causes the home node to return the accessed data to the requesting agent.

Claim 1, for example, recites receiving a speculative memory read request at a

home node before results of a cache coherence protocol are determined, and initiating a

read to memory to complete the speculative memory read request before results of the

cache coherence protocol are determined.

The Office Action concedes that Baumgartner fails to teach completing the

memory read request before results of the cache coherence protocol are determined.

Arimilli fails to make up for these deficiencies.

Arimilli refers to a method and system for speculatively accessing cache memory

data. Referring to Fig. 3, and Col. 4, line 60 et seq. a method is described for accessing

caches in a multi-processor environment. In block 31, a read or RWITM (read with

intent to modify) request is snooped from the system bus by each processor. In block 32,

each processor determines whether the requested data is in its L2 cache. If the data is not

in its L2 cache, a null response is issued. If the data is in its L2 cache, an intervention

coherency response is issued by the processing unit (see Col. 5, lines 6-9). Examples of

intervention coherency responses are given at Col. 4, lines 6-24, and includes a <u>modified</u>

intervention coherency response and a <u>shared</u> intervention coherency response. This can

be compared to the Background section of the Applicants' specification, in particular

page 2, lines 1-7 describing a similar cache snooping technique. Accordingly, as recited

in the specification of Arimilli, a cache coherency protocol is performed <u>before</u> initiating

a read to memory to complete the speculative memory read request as recited in claim 1,

independent claims 9, 19, and 24 include similar limitations.

Since features of the pending claims are not found in the Baumgartner or Arimilli

references, taken individually or in combination, reconsideration and withdrawal of the

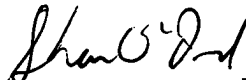rejection of claims 1-29 under 35 U.S.C. § 103(a) is respectfully requested.

CONCLUSION

For all the above reasons, the Applicant respectfully submit that this application is now in condition for allowance. A Notice of Allowance is earnestly solicited.

The Examiner is invited to contact the undersigned at (202) 220-4255 to discuss any matter concerning this application. The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 11-0600.

Respectfully submitted,
KENYON & KENYON

Dated: December 3, 2004   By: _____
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